

DATA SHEET



CONTACT

KFA 42
 DR. FRIEDRICH SCHNEIDER

PHONE +49 (0) 42 93 17 20
 E-MAIL KFA@schneider.de
 WEB www.kfa.de

KFA2

seven KFA sensors with single rod, one-rod or one-rod probe for continuous level measurement and point level detection in liquids and light solids, with wiring and mounting guide.

MEASUREMENT PRINCIPLE

KFA2 uses TDR Time Domain Reflectometry technology. Low energy, high-frequency electromagnetic impulses, generated by the sensor's circuitry, are propagated along the probe which is immersed in the liquid or solid to be measured. When these impulses hit the surface of the media, part of the impulses energy is reflected back as the probe to the circuitry which then calculates the level from the time difference between the impulses sent and the impulses reflected. The sensor can output the measured level as a continuous measurement feeding through its analog output, or it can convert the value into freely programmable switching output signals. TDR sensors are also known as fluid level or liquid flow meters (LFLM).

APPLICATION AREA

The innovative TDR technology enables direct, precise and highly reliable continuous level measurement as well as point level detection in almost every liquid and solid, independent of changing process conditions such as density, conductivity, temperature, pressure, vapor and turbulence. KFA2 has extensive installation flexibility - it can be mounted in small tanks, tall and narrow vessels and it measures precisely even with difficult tank geometries or when in vibrating structures. KFA2 is also especially suitable in liquid chambers and strong acids. It is suitable for all types of process and storage tank applications and has an exceptional performance in media with low dielectric constant (e.g. low reflectivity) such as oils and hydrocarbons.

BENEFITS

- 1. Unmatched price-performance ratio
- 2. Precise continuous level measurement and reliable point level detection combined in one device
- 3. Fully modular probe design, i.e. the probe tips are interchangeable without any special tools or welding
- 4. Complete galvanic isolation of device electronics from the liquid/solids and the tank protection (no problems with electrochemical corrosion protection)
- 4. Highly robust measurement due to a wire design and innovative signal protection and disturbance signal suppression